

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
LAKE MICHIGAN				
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]				
	06/08/09 15:20 CST	0		Marine Thunderstorm Wind (MG 47 kt)
	06/08/09 15:20 CST	0		Source: Official NWS Observations
<p>A line of severe thunderstorms developed in the warm sector ahead of an approaching low pressure system. Warm, moist air and MLCAPE values of 1000-1500 J/kg continued to fuel the storms as they moved across southern Wisconsin. These storms produced damaging winds as they moved from Southeast Wisconsin out over the waters of Lake Michigan from near Wind Point south to Winthrop Harbor IL. Hail up to 1/5 inches in diameter was reported inland away from Lake Michigan with these storms, however, no reports of hail over the nearshore waters were received.</p>				
SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 1.4 E SHEBOYGAN [43.75, -87.69]				
	06/19/09 00:00 CST	0		Marine Thunderstorm Wind (MG 38 kt)
	06/19/09 00:00 CST	0		Source: C-MAN Station
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]				
	06/19/09 00:40 CST	0		Marine Thunderstorm Wind (MG 44 kt)
	06/19/09 00:40 CST	0		Source: C-MAN Station
<p>A surge of warm, moist air advection at the nose of a low level jet produced a line of scattered strong thunderstorms which moved over the nearshore waters of Lake Michigan. Thunderstorm wind gusts to around 40 knots were generated.</p>				
WISCONSIN, Southeast				
DANE COUNTY --- 3.4 SSE UTICA [42.92, -89.09]				
	06/08/09 13:21 CST	0		Hail (1.00 in)
	06/08/09 13:21 CST	0		Source: Amateur Radio
ROCK COUNTY --- 5.0 E NEWVILLE [42.83, -88.92], 3.0 NE LIMA CENTER [42.85, -88.79]				
	06/08/09 13:45 CST	0		Thunderstorm Wind (EG 56 kt)
	06/08/09 14:00 CST	0		Source: Trained Spotter
<p>A swath of thunderstorm wind damage raked northeast Rock County. Many large trees were uprooted or damaged. The swath was about 4 miles wide. This event continued into northwest Walworth County and then southeast Jefferson County.</p>				
GREEN COUNTY --- 1.0 S BRODHEAD [42.61, -89.37]				
	06/08/09 13:54 CST	0		Hail (1.00 in)
	06/08/09 13:54 CST	0		Source: Trained Spotter
WALWORTH COUNTY --- 2.0 W WHITEWATER [42.83, -88.77], 3.0 E WHITEWATER [42.83, -88.67]				
	06/08/09 14:00 CST	30K		Thunderstorm Wind (EG 56 kt)
	06/08/09 14:10 CST	0		Source: Law Enforcement
<p>A swath of thundersrtorm wind damaged affected northwest Walworth County. The swath was about 4 miles wide. At least 200 trees were uprooted in the Whitewater area, and two vehicles (\$estimated \$10K in damage) were damaged by tree debris. The tree debris also knocked out a couple feeder power-lines that resulted in 3800 customers losing electrical power. This swath started in northeast Rock County and ended in southeast Jefferson County.</p>				
JEFFERSON COUNTY --- 3.0 ENE WHITEWATER [42.85, -88.68], 2.0 SE PALMYRA [42.86, -88.57]				
	06/08/09 14:10 CST	0		Thunderstorm Wind (EG 56 kt)
	06/08/09 14:20 CST	0		Source: Trained Spotter
<p>This event is a continuation of a swath of thunderstorm wind damage that affected northeast Rock County and northwest Walworth County. Many large trees were damaged or uprooted in southeast Jefferson County. The swath was about 4 miles wide.</p>				
WALWORTH COUNTY --- 1.0 NNE TROY CENTER [42.83, -88.46], LAKE BEULAH [42.82, -88.32]				

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/08/09 14:21 CST		10K	Thunderstorm Wind (EG 56 kt)
	06/08/09 14:35 CST		0	Source: Trained Spotter

A swath of thunderstorm wind damage was reported in northeast Walworth County. The swath was about 2 miles wide. Many large trees were uprooted or damaged. TA roof on a home in East Troy was damaged by tree debris.

WAUKESHA COUNTY --- 1.8 WSW MUKWONAGO [42.86, -88.36], 1.5 E MUKWONAGO [42.87, -88.30]

06/08/09 14:38 CST	0	Tornado (EF0, L: 3.15 mi , W: 100 yd)
06/08/09 14:42 CST	0	Source: NWS Storm Survey

A weak, minimal EFO tornado spun up along a line of severe thunderstorms that progressed across southern Wisconsin. The responsible supercell actually developed a mesocyclone when it crossed the Jefferson-Waukesha County line west of the village of Eagle. The tornado started at the west end of Lower Phantom Lake and tracked just north of east through the city of Mukwanago and dissipated near the intersection of the Mukwanago River and the Fox River east of the city. Damage was limited to uprooted trees and broken large limbs. The winds were estimated at 56 to 61 knots (65-70 mph). The average path width was about 30 yards. The compass bearing was about 80 degrees. Start and ending location was 42.86003/-88.36303 and 42.86666/-88.30144. DI#27(TH), DOD2.

RACINE COUNTY --- WATERFORD [42.77, -88.22]

06/08/09 14:45 CST	0	Thunderstorm Wind (EG 50 kt)
06/08/09 14:45 CST	0	Source: Law Enforcement

Several large trees were blown down by thunderstorm winds in Waterford.

WAUKESHA COUNTY --- MUKWONAGO [42.87, -88.33]

06/08/09 14:47 CST	0	Hail (1.50 in)
06/08/09 14:47 CST	0	Source: Law Enforcement

KENOSHA COUNTY --- DOWNTOWN KENOSHA [42.58, -87.83]

06/08/09 15:30 CST	0	Thunderstorm Wind (EG 50 kt)
06/08/09 15:30 CST	0	Source: Law Enforcement

Several large trees were blown down in the downtown area.

A line of severe thunderstorms developed over southwest Wisconsin in the warm sector ahead of an approaching low pressure system. These storms produced damaging winds, large hail up to 1.5 inches in diameter, and a weak EFO tornado that spun up near Mukwonago in Waukesha County. A total of 5800 customers lost electrical power due to tree debris impacting power-lines across southeast Wisconsin. At least 3800 of these customers were in the city of Whitwater (Walworth Co.). Warm, moist air and MLCAPE values of 1000-1500 J/kg continued to fuel the storms as they moved across southern Wisconsin. Surface air temperatures were in the upper 70s with dewpoints in the middle to upper 60s.

DANE COUNTY --- DANE [43.25, -89.50]

06/18/09 22:20 CST	0	Hail (2.75 in)
06/18/09 22:25 CST	0	Source: Law Enforcement

Hail increased from 1.75" at 22:23 to 2.75" at 22:25.

IOWA COUNTY --- 0.4 SSW PINE KNOB [43.06, -90.28], 0.6 SE PINE KNOB [43.06, -90.27]

06/18/09 22:27 CST	0	Tornado (EF0, L: 0.46 mi , W: 50 yd)
06/18/09 22:28 CST	0	Source: NWS Storm Survey

A brief, weak, minimal EFO tornado spun up around 5 miles east-northeast of Highland. A few large trees were uprooted or damaged around the intersection of CTH P and Council Bluffs Road. Average path width was about 25 yards. Maximum wind speeds were estimated at 56 to 61 knots (65-70 mph). The path compass bearing was 100 degrees. The beginning and ending points were 43.06442/-90.28184 and 43.06312/-90.27297. DI#27(TH), DOD2.

IOWA COUNTY --- 2.0 WNW DODGEVILLE [42.98, -90.17]

06/18/09 22:45 CST	0	Hail (1.00 in)
06/18/09 22:45 CST	0	Source: Storm Chaser

IOWA COUNTY --- DODGEVILLE [42.97, -90.13], 2.0 E MINERAL PT [42.85, -90.14]

06/18/09 22:45 CST	50K	Thunderstorm Wind (EG 56 kt)
06/18/09 22:45 CST	0	Source: Law Enforcement

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

Many reports of toppled trees and damaged power-lines were received from within and near Dodgeville to a couple miles east of Mineral Point.

IOWA COUNTY --- 5.0 NW RIDGEWAY [43.05, -90.05]

	06/18/09 23:00 CST		0	Hail (1.00 in)
	06/18/09 23:00 CST		0	Source: Amateur Radio

IOWA COUNTY --- MINERAL PT [42.85, -90.18]

	06/18/09 23:00 CST		0	Hail (1.75 in)
	06/18/09 23:00 CST		0	Source: Law Enforcement

IOWA COUNTY --- 5.0 SE DODGEVILLE [42.92, -90.06]

	06/18/09 23:02 CST		0	Hail (2.50 in)
	06/18/09 23:02 CST		0	Source: Trained Spotter

IOWA COUNTY --- DODGEVILLE [42.97, -90.13]

	06/18/09 23:04 CST		0	Hail (1.00 in)
	06/18/09 23:04 CST		0	Source: Law Enforcement

IOWA COUNTY --- DODGEVILLE [42.97, -90.13]

	06/18/09 23:04 CST		0	Thunderstorm Wind (EG 65 kt)
	06/18/09 23:04 CST		0	Source: Law Enforcement

An entire grove of trees was toppled.

DANE COUNTY --- 2.0 NE SUN PRAIRIE [43.20, -89.17], 2.0 NW SUN PRAIRIE [43.20, -89.23], 2.0 W DOWNTOWN MADISON [43.07, -89.46], 2.0 E DOWNTOWN MADISON [43.07, -89.38]

	06/18/09 23:05 CST		25K	Flash Flood (due to Heavy Rain)
	06/19/09 03:00 CST		0	Source: Trained Spotter

Heavy rainfalls of 1 to 3 inches (estimate based on radar and reports) in the Madison to Sun Prairie area resulted in flash flooding. Many streets and roads were flooded to a depth of 1 to 3 feet. Several gravel shoulder washouts were reported.

DODGE COUNTY --- 2.0 WSW IRON RIDGE [43.39, -88.57]

	06/18/09 23:05 CST		0	Thunderstorm Wind (EG 56 kt)
	06/18/09 23:05 CST		0	Source: Law Enforcement

Several large trees were blown down from thunderstorm winds. One road was blocked by tree debris.

DANE COUNTY --- MIDDLETON [43.10, -89.50]

	06/18/09 23:20 CST		0	Thunderstorm Wind (EG 56 kt)
	06/18/09 23:20 CST		0	Source: Law Enforcement

Seveal large trees blown down by thunderstorm winds.

IOWA COUNTY --- HOLLANDALE [42.87, -89.93]

	06/18/09 23:23 CST		0	Hail (2.00 in)
	06/18/09 23:23 CST		0	Source: Amateur Radio

WAUKESHA COUNTY --- 3.0 SW DOWNTOWN WAUKESHA [42.99, -88.26]

	06/18/09 23:35 CST		5K	Thunderstorm Wind (EG 56 kt)
	06/18/09 23:35 CST		0	Source: Law Enforcement

Several large trees were toppled and a couple power-lines sustained damage due to tree debris.

ROCK COUNTY --- EVANSVILLE [42.78, -89.30]

	06/18/09 23:45 CST		15K	Thunderstorm Wind (EG 56 kt)
	06/18/09 23:45 CST		0	Source: Law Enforcement

Seveal large trees were toppled and a couple power-lines down sustained damage due to tree debris. A tree fell on a car.

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
JEFFERSON COUNTY --- 4.0 ENE FT ATKINSON [42.95, -88.78]				
	06/18/09 23:50 CST		10K	Thunderstorm Wind (EG 56 kt)
	06/18/09 23:50 CST		0	Source: Law Enforcement
A few large trees were toppled and power-line were down due to tree debris.				
KENOSHA COUNTY --- 0.2 NW DOWNTOWN KENOSHA [42.58, -87.83]				
	06/18/09 23:58 CST		0	Thunderstorm Wind (EG 56 kt)
	06/18/09 23:58 CST		0	Source: Law Enforcement
A few large trees were toppled.				
RACINE COUNTY --- 4.0 E WIND LAKE [42.83, -88.07]				
	06/19/09 00:03 CST		0	Thunderstorm Wind (EG 52 kt)
	06/19/09 00:03 CST		0	Source: Amateur Radio
A few large trees were toppled.				
RACINE COUNTY --- 3.0 W UNION GROVE [42.68, -88.11]				
	06/19/09 00:05 CST		0	Funnel Cloud
	06/19/09 00:05 CST		0	Source: Trained Spotter
RACINE COUNTY --- 4.0 SW DOWNTOWN RACINE [42.68, -87.86], 3.0 W DOWNTOWN RACINE [42.72, -87.86]				
	06/19/09 00:06 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 00:11 CST		0	Source: Amateur Radio
A few large trees were toppled.				
MILWAUKEE COUNTY --- 1.0 W DOWNTOWN MILWAUKEE [43.03, -87.99], 1.0 W WAUWATOSA [43.05, -87.97], WEST ALLIS [43.00, -87.97], 1.0 SE GREENFIELD [42.94, -87.99]				
	06/19/09 00:10 CST		5K	Flash Flood (due to Heavy Rain)
	06/19/09 03:00 CST		0	Source: Storm Chaser
Numerous reports of flash flooding were received from the West Allis, Wauwatosa, Milwaukee, and Greenfield areas. Several roads were flooded to a depth of 1 to 3 feet, and there was standing water on I-894 in Greenfield. West Allis received 3.68" of rain in 1 hour around the midnight hour. A couple cars sustained water damage.				
WALWORTH COUNTY --- MILLARD [42.73, -88.62]				
	06/19/09 00:10 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 00:10 CST		0	Source: Law Enforcement
A few large trees were blown down by thunderstorm winds.				
WAUKESHA COUNTY --- 3.0 NNW DOWNTOWN WAUKESHA [43.06, -88.24], BROOKFIELD [43.07, -88.15], 4.0 E BROOKFIELD [43.07, -88.07], NEW BERLIN [42.98, -88.12]				
	06/19/09 00:10 CST		0.12M	Flash Flood (due to Heavy Rain)
	06/19/09 03:00 CST		0	Source: Amateur Radio
Numerous reports of flash flooding were received from the Waukesha to Brookfield and New Berlin areas. A couple gravel shoulder washouts were reported, and some minor damage to basement contents occurred. Water depths on roads reached 1 to 3 feet. A water control facility in New Berlin was damaged by flood waters (\$100K).				
RACINE COUNTY --- 4.0 N UNION GROVE [42.74, -88.05]				
	06/19/09 00:20 CST		0	Thunderstorm Wind (EG 59 kt)
	06/19/09 00:20 CST		0	Source: Trained Spotter
Several large trees blown down by thunderstorm winds and tree debris was noted on several streets.				
KENOSHA COUNTY --- 1.8 SW DOWNTOWN KENOSHA [42.56, -87.86]				
	06/19/09 01:03 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 01:03 CST		0	Source: Law Enforcement

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
A few large trees were toppled.				
RACINE COUNTY --- DOWNTOWN RACINE [42.72, -87.80]				
	06/19/09 02:05 CST		25K	Lightning
	06/19/09 02:05 CST		0	Source: Newspaper
Lightning struck a home shortly after 0200 CST. The resultant fire damaged an upstairs bedroom. The homes electrical system was fried by the lightning strike.				
A warm front set up across far southern Wisconsin on the afternoon of June 18th as an upper level disturbance moved eastward into the Upper Midwest. A line of severe thunderstorms formed in an area of very warm, unstable air and moved through south-central and southeast Wisconsin overnight. With surface dewpoints near 70, MLCAPE values near 3000 J/kg, and strong wind shear, the storms produced damaging winds, large hail up to 2.75 inches in diameter, dangerous lightning, and a weak tornado. These thunderstorms also dumped very heavy rain up to 4 inches over a relatively short period of time, causing numerous reports of flash flooding across Dane, Waukesha, and Milwaukee counties. At the height of the storms, about 27,000 households were without electricity in southeastern Wisconsin due to damaged power-lines.				
LAFAYETTE COUNTY --- BENTON [42.57, -90.38]				
	06/19/09 07:55 CST		5K	Thunderstorm Wind (EG 65 kt)
	06/19/09 07:55 CST		0	Source: Public
Several large trees were toppled and a power pole was bent by powerful thunderstorm winds.				
LAFAYETTE COUNTY --- 2.0 W SHULLSBURG [42.57, -90.27]				
	06/19/09 08:28 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 08:28 CST		0	Source: Public
Several large trees were blown down by thunderstorm winds.				
GREEN COUNTY --- 2.0 N BROWNTOWN [42.61, -89.82]				
	06/19/09 08:35 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 08:35 CST		0	Source: Law Enforcement
Seveal large trees blown down by thunderstorm winds.				
GREEN COUNTY --- 6.0 NE MONROE [42.66, -89.55]				
	06/19/09 08:52 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 08:52 CST		0	Source: Law Enforcement
Seveal large trees blown down by thunderstorm winds.				
Another upper-level disturbance produced scattered severe thunderstorms over south central Wisconsin during the morning on June 19th. These storms produced damaging winds in Lafayette and Green Counties.				
KENOSHA COUNTY --- 1.3 WNW KENOSHA AIRPORT [42.60, -87.95], 0.2 N KENOSHA AIRPORT [42.60, -87.93]				
	06/19/09 16:42 CST		0	Tornado (EF0, L: 1.23 mi , W: 50 yd)
	06/19/09 16:44 CST		0	Source: NWS Storm Survey
A weak EFO tornado spun up just west of the intersection of I-94 and CTH N. It moved just south of east and dissipated near the northwest runway of the Kenosha Airport. Damage was limited to uprooted trees and broken tree branches. Estimated maximum wind speeds were 56 to 61 knots (65-70 mph). Average path length was 20 yards. The compass bearing was 97 degrees. Starting and ending location were 42.60496/-87.95393 and 42.60291/-87.92993. DI#27(TH), DOD2.				
KENOSHA COUNTY --- 1.0 N PLEASANT PRAIRIE [42.56, -87.93]				
	06/19/09 16:50 CST		0	Hail (1.00 in)
	06/19/09 16:50 CST		0	Source: Trained Spotter
KENOSHA COUNTY --- 2.0 N DOWNTOWN KENOSHA [42.61, -87.83], 4.0 S DOWNTOWN KENOSHA [42.52, -87.83], WILMOT [42.52, -88.18], 4.0 NW PADDOCK LAKE [42.62, -88.18]				
	06/19/09 17:00 CST		12.29M	Flash Flood (due to Heavy Rain)
	06/19/09 21:00 CST		0.20M	Source: Emergency Manager

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Heavy rains resulted in flash flooding in the southeast part of Kenosha County. Numerous streets were flooded with water depths of 2 to 4 feet , and several were impassable. Several vehicles were stranded in the flood waters and rescues were performed. Water depths were up to the windows of cars in the city of Kenosha. Interstate 94 at STH 165 was covered by water and southbound lanes were closed. STH 50 was closed from Interstate 94 east to CTH H. CTH C was closed going west from Interstate 94 due to high water levels. Several other roads were closed. Damage was noted to several culverts and road shoulders, and water lift stations/pumps were damaged in some facilities. Compounding the flooding problem was the loss of electrical service which meant sump pumps in homes didn't operate. Basement flooding was a major issue. WSR-88D Doppler radar rainfall estimates on top of a wet ground were on the order of 3 to 6 inches for a 24-hour period ending 2000 CST. Some farm fields were probably flooded, per newspaper articles, but no direct loss estimates were available. Therefore, a nominal \$200K was estimated for the purpose of this documentation.				

The initial Uniform Disaster Situation Report compiled by the Kenosha County Emergency Management indicated that at least 600 homes were affected by flood waters, but had no damage, at least 590 homes had minor flood damage, at least 11 homes had major damage, and at least 1 home was destroyed, for a monetary loss of at least \$11,975,000. At least one business had major flood damage for a monetary loss of at least \$310,000. Total estimated private sector damage was at least \$12,285,000. Public sector damage included about \$265,000 to road systems, \$110,000 damage to water control facilities, \$18,000 damage to public buildings & related equipment, and about \$295,000 to public utility systems, for a total public sector damage estimate of about \$683,000. Additionally, debris clearance cost about \$22,000, protective measures cost about \$57,000, and there was other \$91,000 in miscellaneous costs. These last three values are not considered direct property damage.

MILWAUKEE COUNTY --- 2.0 NW WEST ALLIS [43.02, -88.00], TIMMERMAN ARPT [43.12, -88.03], 2.0 N MILWAUKEE HOAN BRIDGE [43.06, -87.90], 2.0 S MILWAUKEE HOAN BRIDGE [43.00, -87.90]

06/19/09 17:00 CST	13.13M	Flash Flood (due to Heavy Rain)
06/19/09 21:00 CST	0	Source: Law Enforcement

Heavy rains resulted in flash flooding in parts of Milwaukee County, especially in the West Allis to Wauwatosa area east to the Downtown Milwaukee area. Many roads were covered with water to a depth of 1 to 3 feet. Basement flooding was reported. Milwaukee Mitchell Field measured 3.65 inches of rain in the 24-hour period ending 2000 CST. WSR-88D Doppler radar rainfall estimates were in the 3 to 5 inch range over parts of Milwaukee County. The City of Milwaukee sewer system was overwhelmed. High water levels on the Menomonee River just east of Miller Park resulted in part of an earthen berm being washed away. The subsequent flood water moved west to Miller Park and extensively flooded the lower service area, clubhouses, and part of the dugouts and warehouse. The playing field wasn't affected. Milwaukee Brewer executives said damage was in the millions, but they would not specify an amount. Therefore, for the purpose of this StormData documentation, a value of \$5 Million was assigned.

A Uniform Disaster Situation Report generated by the Milwaukee County Emergency Management indicated that at least 1227 homes sustained minor flood damage, and at least 2 homes had major damage, for a monetary loss of about \$7,079,000. Also, at least 12 businesses sustained minor flood damage and 1 had major damage for a business loss estimate of \$215,000. The total estimated private sector damage in this report was \$7,294,000. Additionally, damage in the public sector amounted to about \$40,000 to road systems, about \$25,000 to water control facilities, about \$269,000 to public buildings & related equipment, and about \$5,000 to public utility systems. The total public sector damage estimate is about \$339,000. Other costs in the report included about \$24,000 in debris clearance, about \$21,385 for protective measures, and about \$107,718 in miscellaneous expenses. However, the last three values are not considered direct property damage. Flood damage to Miller Park is not included in the Uniform report.

RACINE COUNTY --- UNION GROVE [42.68, -88.05], YORKVILLE [42.73, -88.03], DOWNTOWN RACINE [42.72, -87.80], 2.0 S ELMWOOD PARK [42.67, -87.83]

06/19/09 17:00 CST	0.35M	Flash Flood (due to Heavy Rain)
06/19/09 21:00 CST	0	Source: Law Enforcement

Heavy rains resulted in flash flooding over the southeast part of Racine County. Damage was inflicted on a Union Grove retention basin in the Industrial Park Annex. There were some reports of gravel shoulder washouts. Many roads had 1 to 3 feet of water covering the low spots. At least 3 vehicles were submerged in water in the Township of Mount Pleasant. In the city of Racine, traffic had to be diverted due to flooded roads. In Downtown Racine, 6.93 inches of rain was measured in a 24-hour period ending at 2000 CST.

The initial Uniform Disaster Situation Report generated by the Racine County Emergency Management Director indicated that 94 homes were minimally affected by flood waters but the owners were unable to provide damage estimates. One home sustained minor flood damage. An estimate of at least \$347,000 was given in the report for private sector damage. Crop damage was noted in the report, but no monetary value was provided. Public sector damage estimates were not available in the report.

KENOSHA COUNTY --- 4.0 S DOWNTOWN KENOSHA [42.52, -87.83]

06/19/09 17:05 CST	5K	Thunderstorm Wind (EG 56 kt)
06/19/09 17:15 CST	0	Source: Trained Spotter

Several large trees were uprooted by thunderstorm winds and tree debris brought down a couple power-lines.

KENOSHA COUNTY --- 2.0 W DOWNTOWN KENOSHA [42.58, -87.87]

06/19/09 17:10 CST	0	Hail (1.00 in)
06/19/09 17:10 CST	0	Source: Trained Spotter

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WALWORTH COUNTY --- ELKHORN [42.67, -88.55]				
	06/19/09 18:10 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 18:10 CST		0	Source: Law Enforcement
A few large trees were toppled by thunderstorm winds in the area around Elkhorn.				
WAUKESHA COUNTY --- DOWNTOWN WAUKESHA [43.02, -88.22], 2.0 W DOWNTOWN WAUKESHA [43.02, -88.26], 2.0 SW DOWNTOWN WAUKESHA [43.00, -88.25], 2.0 SE DOWNTOWN WAUKESHA [43.00, -88.19]				
	06/19/09 18:45 CST		10K	Flash Flood (due to Heavy Rain)
	06/19/09 21:00 CST		0	Source: Amateur Radio
Numerous roads were completely flooded and impassable on south side of the city of Waukesha. The Fox River was out of its banks and a couple vehicles were floating in downtown Waukesha due to flood waters. Water damage was inflicted on the vehicles. Water depths on roads were 1 to 3 feet.				
WALWORTH COUNTY --- WHITEWATER [42.83, -88.73], LAKE BEULAH [42.82, -88.32], GENOA CITY [42.50, -88.33], 1.0 W SHARON [42.50, -88.75]				
	06/19/09 19:00 CST		10K	Flash Flood (due to Heavy Rain)
	06/19/09 21:00 CST		0	Source: Law Enforcement
Some fast moving waters flowing over county roads in the township of Walworth. Water depths of 1 to 2 feet were reported. A couple gravel shoulder washouts were noted.				
ROCK COUNTY --- BELOIT [42.52, -89.03], 5.0 E BELOIT [42.52, -88.93]				
	06/19/09 19:03 CST		0	Thunderstorm Wind (EG 56 kt)
	06/19/09 19:10 CST		0	Source: Law Enforcement
Seveal large trees were blown down by thunderstorm winds.				
The final in a series of upper level disturbances propagated northeastward across southern Wisconsin during the afternoon and evening of June 19th. This impulse, combined with strong upper level jet dynamics and a very moist, unstable atmosphere, allowed for storms to redevelop across southern Wisconsin. Bulk shear values of 50-60 kts, MLCAP values near 2500 J/kg, and PW values near 1.8" allowed for a series of short thunderstorm lines to move through southern Wisconsin. The result was wind damage, a tornado in Kenosha County, and widespread flash flooding. Due to the heavy rainfall from earlier storms, some locations received 3 to almost 7 inches of rain in less than 24 hours. Flash flooding occurred in Kenosha, Walworth, Waukesha, Milwaukee, and Racine counties.				
(WI-Z057) COLUMBIA, (WI-Z062) IOWA, (WI-Z068) GREEN				
	06/22/09 14:00 CST		0	Heat
	06/22/09 17:00 CST		0	
A ridge of high pressure settled over the Midwest. A very warm air mass with light winds and plenty of sunshine allowed temperatures to warm into the low to mid 90s away from Lake Michigan. Dewpoint temperatures were in the low 70s. Heat index values reached 100 to 101 degrees inland from Lake Michigan by late afternoon.				
(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z067) LAFAYETTE, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA				
	06/23/09 12:00 CST		0	Heat
	06/23/09 17:00 CST		0	
A ridge of high pressure remained in place over the Midwest on the 23rd. Temperatures reached into the mid 90s in many locations by late afternoon. In addition, dew point temperatures in the upper 60s to lower 70s allowed heat indices to rise to 100 to 106 degrees.				
ROCK COUNTY --- 1.8 SE NEWVILLE [42.81, -88.99], 2.6 SE NEWVILLE [42.80, -88.98]				
	06/23/09 19:07 CST		5K	Thunderstorm Wind (EG 65 kt)
	06/23/09 19:09 CST		0	Source: Law Enforcement
Powerful thunderstorm winds toppled several trees and tree debris brought down a couple power-lines.				
ROCK COUNTY --- 2.1 NNW MILTON JCT [42.80, -88.98], 1.8 N MILTON JCT [42.80, -88.97]				
	06/23/09 19:09 CST		8K	Tornado (EF0, L: 0.84 mi , W: 30 yd)
	06/23/09 19:11 CST		0	Source: NWS Storm Survey

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

An isolated thunderstorm cell quickly developed and spun up a weak landspout-type tornado that was spotted by the Janesville airport observer, trained spotters and the public. It began over the southwest part of Clear Lake and moved east-southeast and ended just east of STH 59. A screen porch was ripped off a mobile home trailer and some trees just south and southeast of Clear Lake were uprooted or damaged. The estimated max wind speeds of were 70-75 mph. Starting and ending location of 42.79879/-88.98358 and 42.79540/-88.96750. The compass bearing was 117 degrees. The average path width was about 15 yds. DI#3, DOD2.

A single isolated cell developed quickly in the Edgerton area of north-central Rock County, moved east-southeast, and produced a weak landspout-type tornado and wind damage northwest of the Milton area.

JEFFERSON COUNTY --- 5.2 SW FT ATKINSON [42.88, -88.92]

06/25/09 16:25 CST	0.10K	Thunderstorm Wind (EG 56 kt)
06/25/09 16:25 CST	0	Source: Public

Thunderstorm wind gusts toppled several large trees at the Koshkonong Mounds CC golf course on the east side of Lake Koshkonong southwest of Ft. Atkinson in Jefferson County. Additionally, a tent was damaged and blew away at the Jellystone Campground on the southeast side of Lake Koshkonong.

JEFFERSON COUNTY --- 3.0 S FT ATKINSON [42.89, -88.85], 5.0 S FT ATKINSON [42.86, -88.85]

06/25/09 16:35 CST	0	Thunderstorm Wind (EG 56 kt)
06/25/09 16:35 CST	0	Source: Public

Thunderstorm wind gusts toppled several large trees.

WALWORTH COUNTY --- WHITEWATER [42.83, -88.73]

06/25/09 16:46 CST	0	Thunderstorm Wind (MG 54 kt)
06/25/09 16:46 CST	0	Source: Mesonet

Mesonet at UW Whitewater measured 62 mph wind gust. Several large trees were toppled in the Whitewater area.

A broken line of showers and thunderstorms developed from low-level convergence and a weak trough axis. MLCAPE values were near 2000-2500 J/kg, temperatures were in the upper 80s and the surface dewpoints were near 70. These storms moved through South-central Wisconsin and produced wind damage in Jefferson and Walworth counties.

COLUMBIA COUNTY --- 3.0 ENE PARDEEVILLE [43.55, -89.22], 3.0 NE PARDEEVILLE [43.56, -89.24]

06/27/09 18:48 CST	25K	Thunderstorm Wind (EG 65 kt)
06/27/09 18:48 CST	0	Source: Law Enforcement

Thunderstorm wind gusts toppled several large trees down near STH 44 and STH 33 in the area northeast of Pardeeville. Roof damage to a home was noted near intersection of Vaughn and Atkinson roads. Nearby, a barn roof was torn off.

COLUMBIA COUNTY --- 4.0 SE CAMBRIA [43.51, -89.04]

06/27/09 19:03 CST	5K	Thunderstorm Wind (EG 56 kt)
06/27/09 19:03 CST	0	Source: Trained Spotter

Thunderstorm wind gusts flattened a corn field. Also, several large trees were blown down.

DODGE COUNTY --- 3.0 S BEAVER DAM [43.43, -88.83]

06/27/09 19:23 CST	0	Thunderstorm Wind (EG 56 kt)
06/27/09 19:23 CST	0	Source: Trained Spotter

Seveal large trees were blown down by thunderstorm winds.

A low pressure system located just north of Minnesota moved eastward over northern Wisconsin. South winds ahead of this low and an advancing strong cold front brought an increase in moisture and instability. Severe thunderstorms developed along the cold front across southern Wisconsin. Storm reports were limited to thunderstorm wind damage in Columbia and Dodge counties.